

would be most unusual, but not unprecedented for an aberrant individual to have more melanin than normal in some areas and less elsewhere; an example from the barbets is a specimen of *L. undatus* (sketch in Goodwin 1964) which has increased areas of black pigment generally but lacks melanin on some parts of the head where normal individuals are black.

*P. makawai* is most like *P. bilineatus* and there cannot, I think, be any likelihood that it is the geographical representative of some other known species, such as *P. subsulphureus*. The difference in curvature of the culmen and apparent width of the bill seem to me not in themselves of great significance as some other forms of *bilineatus* have heavier bills than is usual in *mfumbiri* and a specimen of *P. b. mfumbiri* (British Museum number 1939.10.1.525) from the Didinga Mountains in Southern Sudan has a bill whose size and curvature seems to me similar to that of *makawai*. As, however, specimens of *mfumbiri* taken from or near the type locality of *makawai* all have rather more slender and conical bills, this may well indicate an ecological difference where they overlap. It would certainly be surprising if an aberrantly coloured individual happened also to have a slightly aberrant bill.

The differences of colour pattern between *makawai* and *mfumbiri* are certainly more striking than those between *bilineatus* and *subsulphureus* in some areas where these latter species overlap. Moreover, and I think this may be important, this difference is most obvious if a specimen of each is held and viewed head-on when the white sub-ocular stripe of *mfumbiri* which continues over the base of the upper mandible, its white throat, greyish breast and white superciliary stripe give it an appearance very different from that given by the black forehead and throat, separate sub-ocular stripes and yellowish-white breast of *makawai*. It seems probable that this difference could function as an isolating mechanism as there is abundant circumstantial evidence that the coloration of the head and upper breast of birds is often of primary significance in this respect.

I conclude, therefore, that *makawai* is best considered as a new species, at least provisionally. Further confirmation of its status is, however, desirable. It would be interesting to discover if there are vocal differences such as there are between the calls, or at any rate the known calls, of *bilineatus* and *subsulphureus* (Chapin 1939, Young 1946).

#### References:

- Chapin, J. (1939). The Birds of the Belgian Congo. *Bull. Amer. Mus. Nat. Hist.* 75.  
Goodwin, D. (1964). Some aspects of taxonomy and relationships of barbets (Capitonidae) *Ibis* 106, 108-220.  
Young, C. G. (1946). Notes on some birds of the Cameroon Mountain district. *Ibis* 88, 348-382.

## The nesting habits and eggs of the Rufous-tailed Weaver, *Histurgops ruficauda* Reichenow

by MYLES TURNER AND CHARLES R. S. PITMAN

Received 6th August, 1964

On 23rd May, 1946, N. R. Fuggles-Couchman of the Tanganyika Agricultural Department obtained 17 miles south-west of Arusha c/3

*Histurgops ruficauda* which measured 27.9 x 18.0, 28.2 x 17.9 and 28.3 x 18.0 mm. and were pale blue marked streakily, and with scribblings, elongated spots and a few blotches of sienna, with grey-mauve undermarkings. This was the first time eggs of this species had been collected and described. The nest was 12 feet above the ground, in a clump of gall acacias in scattered tree grassland.

Previously, Fuggles-Couchman and H. F. I. Elliott (1:344-45), on 28th June, had found nests with young near Monduli, in gall acacias in scattered *Acacia-Balanites* woodland on the Serengeti plains. The nest—there were one to three nests in each acacia—placed in the thorny branches, is described as a large grass ball, with a short side entrance spout 4 inches long and of similar diameter. The nests are usually 5 to 10 feet above the ground and were constructed of several species of grasses, including *Pennisetum stramineum*—which constituted the bulk of the structure, *P. mezianum*, *Themeda triandra*, *Urochloa nubica* and some *Sporobolus* spp.; there were a few feathers in the lining. This large weaver was observed in flocks of 8 to 12 birds and sometimes in association with *Agapornis fischeri*. It feeds on the ground and has a bleating “pchweezee” call. Its diet is mixed and includes grass and tree seeds, grains of wheat when available, small insects and locusts.

Thanks to investigations carried out by Myles Turner, a member of the Tanganyika National Parks staff, during the past few years in the Serengeti National Park, it is now possible to record in greater detail more of the habits, behaviour and breeding of this little-known weaver.

The Rufous-tailed Weaver is, in fact, one of the commonest weavers found in the Serengeti National Park in Northern Tanganyika. According to (3:866) Praed and Grant (1955) “prefers wooded hills”, which is wrong, at least in the Serengeti habitat, where *Histurgops* is not found around hills or in thick bush, but is a bird of the open grassland. Its general colour is brownish with tawny flight feathers and the very noticeable chestnut coloured patch on the rump and the rufous tail are conspicuous when the bird takes off. Wing measurement averages 125 mm.

It occurs in flocks of up to 25 birds and can often be seen feeding in noisy parties, all alighting on the ground and making short flights forward to land again. In longish grass the birds are very easy to approach when feeding and they have a particularly slow take-off.

### NESTING

Nests of this weaver are constructed in large untidy “clumps”, up to 30 nests in a tree, in the “umbrella thorn”, *Acacia tortilis* which abounds throughout the Park, and where they are not readily accessible. But by far the commonest nesting grounds and the easiest to examine are in the great “gol” (gall) acacia, *Acacia drepanolobium* thickets which occur in the western corridor area of the Park near Lake Victoria and also in the Central Mbalageti Valley. This acacia, commonly known as the “whistling thorn” grows to a maximum height of about 14 feet and sometimes extends for miles in swampy areas. Up to 20 *Histurgops* nests can sometimes be easily examined in one tree by standing on the roof of a Land Rover. From Turner’s observations, building by *Histurgops* goes on practically all the

year round accompanied by the usual frantic activity and noise so typical of weavers. Pitman was able to observe this in September, 1961, when, in the middle of a fine day prior to rains, he found a colony in which about a dozen nests were occupied, several being built, on the pendant branches of an *Acacia tortilis* and from which an unexpected number of birds "exploded"; they had not returned an hour later. From the top of a lorry it was possible to ascertain that the nests contained no eggs as was only to be expected for all the nests had two entrances. The nest, as seen in the photographs, is a large untidy structure, about 18 x 9 inches in size, made of coarse grass, mainly bamboo grass, *Pennisetum mezianum* and with an entrance at either end. It is often cylindrical in shape and up to six nests are sometimes joined together in an untidy clump. In the nests Turner examined which contained eggs of the Superb Starling, *Spreo superbus* Ruppell, he could not understand how the eggs managed to remain in these nests, because of the two entrances, one at each end as it seemed impossible that eggs would not fall out when the tree was blown by the wind. Prior to September, 1962, Turner had come across only four eggs out of a total of



Photographs : Myles Turner

#### Nests of *Histurgops ruficauda*

some 300 nests examined. On 7th January, 1964, in the Handajega area he inspected 57 nests and collected seven eggs which turned out to be those of the Superb Starling. Apparently these starlings use the hundreds of abandoned and unoccupied *Histurgops* nests for breeding. Also, at the same time he observed large numbers of Fischer's or Orange-faced Lovebird, *Agapornis fischeri*, exploding out of nests when disturbed by day and flying into them in the evening. These lovebirds seem to use the nests as roosting places, as so far Turner has found none of their eggs. According to (2:552-53) Praed and Grant (1952) this lovebird "is also said to make or use oval nests and close up the entrance with thorns". On 14th January, 1964, Turner moved further west to the Nyakaromo area and after examining about 80 nests collected 20 *Histurgops* eggs. In one acacia examined, containing 14 nests, were found: one nest with 3 eggs; another with 3 *Spreo superbus* eggs; a third contained two fledgling *Histurgops* nearly ready to fly; and two half built new nests with birds building. In February, 1964, more *Histurgops* eggs, were collected as the first consignment for the British Museum (Natural History) were damaged during transit.

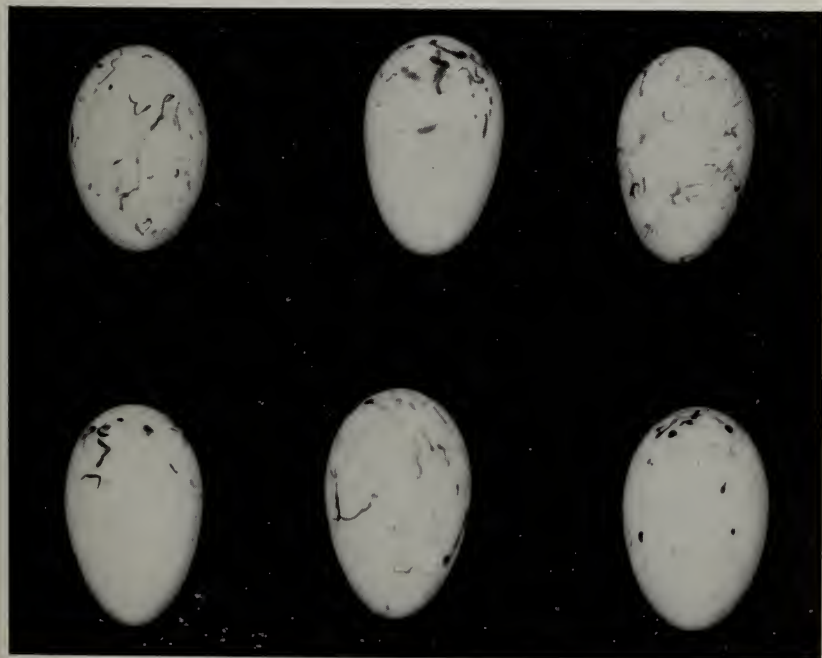


All nests containing eggs have only *one* entrance, as before eggs are laid one of the entrances is closed. Clutches of eggs are never more than 3 and sometimes only 2; single eggs presumably represent incomplete sets. The interior of the nests he examined contained no lining, neither feathers nor padding, and the eggs rested on the grass shell. *Histurgops* roosts in these great nesting colonies all the year round and the "double entrance" nests are doubtless built this way to facilitate entry and exit. January, February and March are the main breeding months. Turner's photographs depict the untidy *Histurgops* nests in a "whistling thorn", as well as the grassland habitat.

According to Turner, a large grey hawk has often been observed "bullying" these weavers, and he has seen this predator raiding a colony and tearing at the nests. He was under the impression that both species of Chanting Goshawk, *Melierax poliopterus* Cabanis and *Melierax metabates mechowii* Cabanis, which are common in the Park, are the culprits; but it is more likely to be the Harrier Hawk or Gymnogene, *Polyboroides typus* Smith, its propensity for raiding weaver colonies being a well-known characteristic.

### EGGS

There is little variation in the coloration or markings of the eggs, which are smooth without gloss and inclined to be elongate. The ground colour is very light to pale blue and the markings—long streaks, scrawls, scribblings and spots—are either scattered sparingly all over the egg or have a tendency



Photograph: Myles Turner

Eggs of *Histurgops ruficauda* (actual size)

to become thicker at the large end or to form a wreath around the top of the large end. The markings, which vary from black to sepia and brown on underlying shades of grey and slate-grey, are rarely discrete. The illustration shows how little the markings vary.

Twenty-one eggs average 27.3 x 17.3 mm., with a measurement range 25.3–29.0 x 16.5–18.3 mm.

#### SUMMARY

The habitat of the Rufous-tailed Weaver, *Histurgops ruficauda* of Tanganyika is described.

Habits, behaviour, call, abundance and flock size are all mentioned.

There are details of the eggs and nests; favourite nesting trees are identified, as are also the grasses of which the nests are composed.

The Superb Starling, *Spreo superbus* lays in the old nests of *Histurgops*, in which quantities of the Fischer's or Orange-faced Lovebird, *Agapornis fischeri* also commonly roost, both by day and night.

Nest colonies are occupied by *Histurgops* throughout the year but the breeding season is brief.

A large grey hawk has often been seen harrying the *Histurgops* colonies.

#### ACKNOWLEDGEMENT

We gratefully acknowledge the permission of the Trustees and the Director of the Tanganyika National Parks for the publication of this paper.

#### References:

- Fuggles-Couchman, N. R. and Elliott, H. F. Some records and field notes from North-Eastern Tanganyika Territory. *Ibis*, 88, 1946.  
 Mackworth-Praed, C. W. and Grant, Captain C. H. B. *Birds of Eastern and North-eastern Africa*, vol. 1, 1952.  
 — *Birds of Eastern and North-eastern Africa*, vol. 2, 1955.

## An ecological investigation of the Giant Pied-billed Grebe, *Podilymbus gigas* Griscom

by ANNE LABASTILLE BOWES

Received 2nd August, 1964

One of the rarest waterbirds in the Western Hemisphere is the Giant Pied-billed Grebe, *Podilymbus gigas*, of the Guatemalan highlands. The species occurs only on Lake Atitlan (1555 metres) and numbers no more than an estimated 200 individuals.

The author and her husband, C. V. Bowes, Jr., became interested in these grebes during several Guatemalan trips in connection with their Caribbean Wildlife Tours. It was soon evident that local residents were ignorant about the species and that the birds were subject to shooting, egg-stealing and some natural predation. Nothing could be found on its life history, nor had there been any mention in the literature since 1936.

Consequently, in March, 1960, the Bowes, Jr., with Jorge Ibarra, Director of Guatemala's Museum of Natural History, and Father Juan Manuel, priest of Panajachel, spent four days censusing and photographing the Atitlan grebes by boat. A total of 99 birds was seen along